Wild Turkey Hunting 2002-2005

The good ole days of turkey hunting may very well be taking place right now. Turkey hunting has been pretty good over the past three years. In fact, WDFW wild turkey harvest estimates have been at an all time high with about 4,500 turkeys harvested each year from 2002 to 2004 (Figure 1).

A part of the increased spring harvest was due to a new youth hunting season. In 2004, the first youth turkey season in Washington State history took place on the weekend prior to the regular spring season. Purchase of youth small game licenses with turkey tags increased by 500 for the past two years.

The increase in spring harvest is only part of the picture. In 2002 the Department began to expand fall hunting opportunity in northeastern Washington by increasing the number of fall permits made available in some Game Management Units (GMUs). In 2004, a general fall season was established for GMUs 105 - 124 in place of the permit only season. These increases in fall hunting opportunity

were created to help address nuisance and damage complaints from landowners. Complaints had dramatically increased during the late 1990's and early 2000's.

Even with this increased fall harvest, additional hunter opportunity may still be available as the Department tries to address continuing nuisance complaints. As part of the 3-year hunting season setting process, the Department will be considering various options to expand hunting opportunity.

Mick Cope Upland Game Section Manager

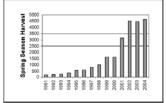


Figure 1. Wild Turkey Spring Harvest Estimates 1991 - 2004.



Photo Courtesy of Bob Inouye

Upland Game Bird Seasons Looking Up in 2005

Specific surveys for most upland game birds fell to the budget axe several years ago, however, early reports from WDFW field biologists point toward a successful 2005 season. Some landowners are also reporting that this year's pheasant season should be better than recent years. In some parts of the state, there were early spring rains that resulted in early green-up and produced good nesting and brood rearing conditions for upland game birds.

Upland bird hunting in Washington has had its ups and downs over the past 10 years. While quail hunting has been improving lately, pheasant harvest in many areas has been mostly down. Washington Department of Fish and Wildlife biologists, as well as biologists from South Dakota, Kansas, and Iowa have pointed to several factors affecting pheasant populations, but the drastic long term change in habitat is most commonly identified as the primary culprit. The number of acres of quality habitat in some areas of the Columbia and Yakima basins just isn't what it used to be. Fortunately, pheasants are benefiting from increased habitat in other locations - like those counties bordering the Snake River. Additional information about the department's plans to improve conditions will be provided in next year's edition of Game Trails.

An improved pheasant season this year would go well with the improved quail hunting that has taken place over the past three years. Quail harvest was up and down from 1982, to 1999 - averaging 103,000 quail harvested per year with the highest year reported at 160,000. But since 1999 quail hunters have been much more successful. Harvest reports from 2003 and

2004 showed that hunters took 190,000 and 162,000 quail statewide. This level of harvest has not been seen in over 20 years. Early reports from field biologists and landowners indicate that this level of quail harvest should continue in 2005.

Gray partridge and chukar and hunting have been pretty tough over the past few years. However, there is a chance that the improved nesting conditions this year could result in better hunting opportunities for these birds as well.

For information about where you might be able to hunt this year, visit the WDFW homepage at www.wdfw.wa.gov. You will find a link to Internet mapping which will

take you to "GoHunt", the department's most comprehensive mapping information site. With this mapping program, you will be able to produce custom maps that show lands owned by WDFW or other state and federal agencies, topographic maps, private lands hunting opportunities, Game Management Units, and other information like aerial photos, WDFW water access sites, and pheasant release sites. GoHunt is a graphics-intensive program that works best on high-speed Internet connections, but if you are patient, it will work on dial-up connections as well. We hope you are able to take part in hunting upland birds this fall.

Mick Cope Upland Game Section Manger



Photo Courtesy of Pheasants Forever

New Rules Are In Effect for Hunters Reporting

Deer, elk, black bear and turkey hunters who do not report harvest by January 31, 2006 will be required to pay \$10 extra for their 2006 hunting licenses. The change was passed by the 2005 Legislature and enacted by the Fish and Wildlife commission last August. Reporting rates had declined to less than 65 percent by the deadline and this fine is designed to increase reporting rates. Wildlife managers rely on accurate harvest information for developing permit levels and to determine the impacts of hunting season changes. Successful hunters who report within 10 days of harvest and un-successful hunters who report by January 10 will be entered into a drawing for nine special permit hunts for 2006.

Gearing Up For 2006-08 **Hunting Season** Regulation Cycle

The Department is already gearing up to develop the 2006-08 hunting season regulations. We recently completed a survey asking the public what they think should be changed. We did that by listing the issues we've heard during the past few years and by working with the Game Management Advisory Council (GMAC). The GMAC is a citizen panel of hunters, landowners, and conservation organizations that provides advice to the department on game management issues. We received over 2000 responses from the survey that ranked the list of issues and provided comments and recommendations for

We are sorting through the priority issues and developing options to address them. The options will be available for

public review and comment next month. We will take the public comment on the options and refine those down to two or three alternatives. The alternatives will be available for comment in January. We will also conduct public meetings in Vancouver on January 17th; Aberdeen on the 18th; Tacoma on the 19th; Edmonds on the 20th; Wenatchee on the 24th; Pasco on the 25th; and Spokane on the 26th.

All of that input will be used to develop recommendations on the hunting season package. The recommendations will be submitted to the Fish and Wildlife Commission for action at their April meeting. The public will be encouraged to comment on those recommendations in March and/or at the meeting in April.

So there is lots of opportunity coming your way to get involved in hunting season regulations for 2006-08. The best way to track the whole process is via the department's Web page at www.wdfw.wa.gov under the hunting section. You can also get on our mailing list by calling the Wildlife Program at (360) 902-2515.

Many of the articles in this edition of Game Trails provide a review of the impacts from changes made during the last few years. These impacts may result in recommendations for changes in the 2006-08 cycle as well.

> Dave Ware Game Division Manager

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Archers, Muzzleloaders, Modern Firearms Hunters -Who Gets What???

Deer and elk hunters are required to choose a tag specific to a weapon type each year. This system was initiated in 1984 in order to reduce crowding during modern firearm seasons and to provide hunting opportunity for primitive weapons. Overall, the system has worked fairly well with archers and muzzleloaders making up about 20 percent of deer hunters and 32 percent of elk hunters in 2004. So hunter density during general modern firearm seasons has gone down significantly and each area of the state or "district" has separate seasons for all three groups of hunters.

Unfortunately, what this system has also done is create competition among the groups and everyone asking for more hunting opportunity for their particular type of weapon. They ask for more units, more days, more permits, rut opportunity, or later opportunity; anything that helps them with improving harvest or hunting conditions. The arguments almost always refer to lack of fairness, or crowding problems, or minimal impacts to the resource. This competition results in one of the most contentious parts of wildlife management, which is allocation of the resource among hunters.

During development of the 2003-05 hunting season package, the department formed a committee consisting of members representing all three hunting groups. The committee members were a subset of a citizen panel called the Game Management Advisory Council (GMAC). After multiple discussions with the sub-committee and the GMAC, hunting opportunity was tweaked in each district of the state to equalize opportunity for all users. The intent was to fairly allocate opportunity for all types of hunters.

The concept was to ensure that adequate opportunity was spread across the state, so the geographic designations used were districts. The state is divided up into seventeen districts with a wildlife biologist in charge of each district. Within each district the idea is to make sure there are enough game management units (GMU) open and adequate seasons provided so that hunter participation for each group mimics the proportion of hunters in that group on the statewide basis. So if archers make up

20 percent of elk hunters statewide, then > Add some antlerless deer opportunity each district should be providing enough opportunity so that about 20 percent of its elk hunters are archers. In addition, each group's opportunity should be sufficient to allow harvest levels that are proportionate to the group's participation levels. Again, if 20 percent of the district's elk hunters are archers, then they should harvest about 20 percent of the elk taken in that district. It is important to remember that allocation is balanced within the district not within each GMU

The main changes that were done during the 2003-05-season setting were to add units or permits. The sub-committee reviewed the results of the changes earlier this year and they are encouraging. Most areas of the state are getting closer to the objectives.

For 2006-08, the sub-committee has recommended some changes to get us even closer in districts that needed improving. The sub-committee also recognized that some districts were providing about all they could, so no changes were recommended.

So how will this allocation equity affect the 2006-08-season regulation development? As mentioned previously, the allocation sub-committee of GMAC made several recommendations.

Implementation of the recommendations will depend on District Biologist review and impact on the resource. In many cases, the Biologists will also be discussing the changes with local stakeholders to determine relative support or acceptance of the recommendations. Following are the recommendations of the sub-committee

Districts that should consider changes for deer hunting equity

- Provide modern firearm opportunity in GMU 381 (District 4).
- Consider harvest success for primitive weapons in District 5 (Columbia Basin).
- Look at swinging some antlerless opportunity to muzzleloader in District 6 (Okanogan)
- Muzzleloader: Disabled permits, youth, senior, other?

- for muzzleloader in District 7 (Chelan County).
- Consider transition in District 12 (King County), GMUs 454 and 460 from archery to modern.
- Consider transition in District 14 (Skagit & Whatcom counties) to additional muzzleloader opportunity.
 - Recommendation: Reduce archery late opportunity in 407 from any deer to any buck and provide muzzleloader permits to take antlerless during their late season.
- Consider transition in District 16 (Jefferson & Clallam counties) to additional muzzleloader opportunity; add antlerless muzzleloader opportunity to GMUs 603 (take a few permits from MF); add GMUs to any buck season.
- Consider transition in District 17 (Grays Harbor & Pacific counties) to additional muzzleloader opportunity.
- Recommendation: Add antlerless permits in units as well as general season buck opportunity.

Districts that should consider changes for > If possible, add GMUs/opportunity for elk hunting equity

District 2 (Spokane, Lincoln, & Whitman counties) needs to increase archery and modern firearm opportunity, especially consider archery and modern firearm opportunity in the Turnbull Refuge.

- Could also provide a modern firearm late season around the refuge
- District 3 (Blue Mountains) needs to increase archery participation and success
- Recommendation: Take some of the antlerless modern firearm permits and allow archery for either-sex during
- Increase archery participation and success in District 7 (Chelan county). Recommendation: allow antlerless in the Malaga unit or GMU 251.
- In District 10 (St Helens), if antlerless opportunity is added to GMU 516 it should go to modern firearm
- Consider antlerless opportunity in District 11 (Thurston & Pierce counties) for modern firearm in GMU's 652 & 667. Consider either sex modern firearm
- opportunity for GMU 454 in District 12 (King County).
- Look for archery and muzzleloader opportunity in permit seasons in District 15 (East Olympics).
- muzzleloader; look at swinging antlerless permits to muzzleloader in open GMUs in District 17 (Grays Harbor & Pacific counties)

Dave Ware Game Division Manager

Why Can't I Hunt During Archery, Muzzleloader, and Modern Firearm Seasons?

As mentioned in the previous article, the requirement for deer and elk hunters to choose a weapon was started in the 1980's mainly to reduce crowding and to provide opportunity for primitive weapons. Since that time, big game hunter numbers have been slowly declining. In just the past five years, sales have declined by a couple thousand tags for both deer and elk.

Beginning next fall (2006), the ability to hunt during multiple seasons (with the appropriate weapon) will again become available. In 2005, the state legislature passed a bill authorizing the Department to create a tag that would allow a hunter to hunt during the general seasons for all three weapon-types, but the bag limit would remain at one deer or elk for the year. The permits are for general seasons; they are not valid for permit only seasons. The tag will A limited number of tags would be be available through a special drawing. Those hunters drawn would be allowed to purchase the new "multiple season" tag for 🕒 \$150 (plus dealer and transaction fees). The proposed rules are as follows:

Tag Sales 2000 - 2004								
Deer	2000	2001	2002	2003	2004			
Modern	136131	134997	131815	128687	131103			
Archery	19225	18436	18547	19529	20016			
Muzzleloader	8546	8518	9159	10540	10985			
2 nd Tag				978	1298			
Total	163902	161951	159521	158756	161104			
Elk								
Modern	72834	69071	66690	66129	67727			
Archery	15959	15776	15997	16799	17249			
Muzzleloader	12383	12885	14757	13281	13566			
2 nd Tag				2	31			
Total	101176	97732	97444	96209	98542			

- ➤ The tags are non-transferable.
- available statewide to disperse hunters.
- We plan to start small with 1,500 2,000 total permits and carefully monitor harvest success rates
- both; with separate application pools.
- > Hunters who are drawn would receive two weeks to purchase the multi-tag and then the tag would be offered to the next person drawn.
- ➤ Permits would be for deer or elk, not ➤ These tags would be in addition to any other permits drawn.
 - Consider shifting the application process earlier to give more notice to successfully drawn permit applicants and time to choose alternate applicants.

Dave Ware Game Division Manager

Note to Aspiring Margaret (GMU 524) and Toutle (GMU 556) Elk Hunters.

elk hunting only by special permit. As a result they have high harvest success rates and provide highly sought after hunting opportunities However many hunters who apply and are successfully drawn are later disappointed by problems related to access. Many of the prime areas in these units are in private ownership and can be closed to all access at any time for a variety of reasons. Some private timber company roads are only opened on weekends during selected periods. Forestry activities can close areas that have been open, and at times closed areas are opened without notice. Both of these actions can create changes that frustrate hunters who have spent time scouting and planning their hunt. In the past, fire danger has forced closures of large portions of the area to all public access. Most recently the threat of volcanic activity around Mt. St. Helens has led to shifting closures of both public and private land.

These Units (GMU 524 and 556) are open to Those applying for permits in these units should be aware that the Department cannot control accessibility in these areas, and can guarantee neither the quality nor the opportunity of hunting here. Many disappointed hunters have asked the Department to refund their fees and restore their preference points when they found the hunting experience to be limited or less satisfying that expected, and yet others are successful and find a nice bull to harvest. Since this state of affairs is now a long standing condition for elk hunting in these two units, we encourage that all applicants consider the risks along with the gains before choosing to apply in GMU 524 or 556.

> Editor's note: This is true for many units that contain large amounts of private land. The general rule is don't apply unless you know what to expect and/or are willing to accept the consequences.

Vancouver Regional Wildlife Biologist



What's The Problem With Colockum Elk?

Archers were restricted to bull-only hunting within the Colockum herd (GMU's 249-335) for the first time in 2004. The elimination of antlerless harvest was a major change that generated great interest in the status of Colockum elk. So what is the status of the herd? From February 2001 to February 2004, the number of elk on winter range declined from about 4500 to 3500 (Figure 1). The goal for the herd is 4,500. The reason for the decline appears to be high antlerless elk harvest (Figure 2). The Colockum elk herd range has a high road density and escape cover is limited. Partly because of this. Colockum vearling bull elk are harvested at a high rate annually, and spike harvests appear to be a good index of overall recruitment (i.e. If 400 yearling bulls are harvested, there were at least 400 yearling cows recruited into the population).

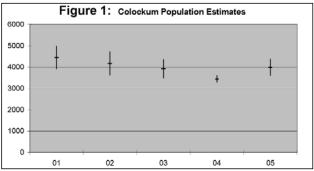
When antlerless harvest exceeds the number of yearling cows produced, the population is likely to decline, and that appears to have happened in the Colockum herd in recent time. The high antlerless harvest from 2001-03 was the result of an emphasis on removing damage causing elk. Permits had been increased around agricultural areas near Wenatchee, and "Master Hunters" were allowed to legally harvest antlerless elk from August 1 -February 28 near Cle Elum and Ellensburg. There has been a need to continue harvesting elk in damage areas, so the only recourse was to eliminate general archery harvest of antlerless elk. In 2004, antlerless harvest was greatly decreased (Figure 2) and the elk population appears to have responded (Figure 1). If the population continues to increase, antlerless archery opportunity should become available in the near future.

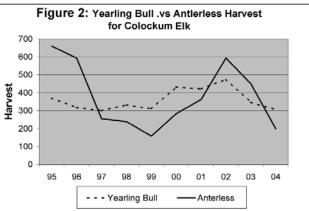
In 2002, the observed bull to cow ratio exceeded the objective of 12 bulls per 100 cows and bull permits were issued. Since 2002, adult bull harvest has increased while both recruitment and number of bulls has decreased (Figure 3). The current observed ratio of bulls to cows is well below objective. Confidence in estimates of the bull component of the population is much lower than for estimates of the antlerless component. Bulls are much harder to survey as they are more likely to be in timbered areas out side the normal winter range especially in mild winters. The entire adult bull component of the population is also relatively small, so if even a few groups are missed, it can be a significant portion this segment. However, given

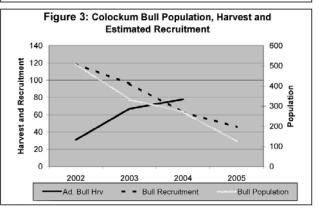
harvest/recruitment trend, it is not surprising that the estimate of adult bulls in the Colockum elk population has decreased. Some adult bulls are being harvested to reduce agricultural damage and more landowner incentive permits maybe added in the future. The Draft Colockum herd plan calls for new survey efforts outside the normal winter range in February 2006 in an attempt better estimate the bulls population. However, given the available data, few if any bull permits are expected outside of damage hunts in 2006.

The Ouestion has to be asked: "Why are so many elk ending up on private lands and causing damage?" There are many possible reasons, but one major factor is human activity. Elk are strongly motivated to seek quality food and security from disturbance. Human activity has increased on winter range in recent time due to winter recreation and the increasingly popular activity of shed antler hunting. Landowners and biologists believe some elk are moving onto private lands to seek refuge from people combing the public lands for shed antlers. In other areas, people have also started feeding elk on private lands in the winter. In spring, elk being fed move onto neighboring agricultural fields as they green-up. If disturbance is minimal, some elk may stay in the area and becoming year-round residents. Meanwhile, in the uplands where elk use is desired road densities are relatively high in many areas (Figure 4), negatively impacting elk habitat values and seasonal elk use. Recreational use of these roads is increasing on a year-round basis. A logical prescription for this problem is to haze or remove elk in the agricultural areas where they cause damage and reduce disturbance in areas where elk use is desired. Implementing such a plan will be difficult and controversial. In areas where elk have become a problem not all landowners wish to see the elk leave or are willing to allow public access. In the uplands, away from agricultural crops, WDFW has little control over land or access. Public sentiments regarding recreational access are also highly variable. A complicating factor has been a "checker board" ownership pattern and changing landowners. All the above issues are addressed in the draft Colockum herd plan with proposed strategies for resolution. A draft of the plan should be available for public review and comment later this fall.

> Jeff Bernatowicz District Wildlife Biologist







Klickitat Area Black-Tailed Deer Management

The annual spring survey of black-tailed deer on and near the Klickitat Wildlife Area was conducted on the 7th and 8th of March 2005. A total of 504 deer were observed during the effort with 462 classified. The number of classified deer was similar to 14-year average of 567 deer.

More significant than the total number of deer observed, however, is the annual ratio of fawns to adults. Young deer are more likely to succumb to harsh winter conditions and food shortages; therefore the ratio provides a barometer for winter severity. During severe winters, fawns suffer mortality at a greater rate than adults thereby reducing the ratio of fawns to adults.

This year's survey resulted in a ratio of 60 fawns per 100 adult deer. Reflective of the extremely mild winter, 60 fawns per 100 adults represents the third highest ratio observed in the 26-year history of the survey and is significantly higher than the long-term average of 46 to 100. The 2005 survey indicates, as expected, that the deer present on or near the Klickitat Wildlife Area suffered very little in the way of winter losses during 2004/05. This year's spring survey represents the fifth consecutive year with winter fawn survival above average.

Additionally, the Klickitat spring survey serves as a predictor of hunting success during the coming fall. Historically, years with relatively high over winter survival of fawns have been associated with relatively large harvests of deer in GMU 588 during the following hunting season. This relationship is based on two fairly straightforward principals. First, mild winters and higher than average over winter survival means that more adult bucks are likely to survive from one year to the next and therefore be available for harvest during the fall following a mild winter. Second, mild winters and higher than average fawn survival means that more yearling bucks will be entering the fall population. In GMU 588, roughly 60% of yearling bucks have at least two antler points on one side and are therefore legal for harvest. Provided that the relationship between mild winters and hunter harvest continues, many legal bucks should be available during the 2005 hunting season in GMU 588.

Game Management Unit 588 (Grayback) is open for General Season Modern Firearm Deer Hunting from October 15-31. Hunters are restricted to two-point or larger bucks. From 2000 through 2004, rifle hunters in the Grayback harvested an average of 762 bucks per year for a combined success rate of 23%.

GMU 588 is also open for Early Season Archery Deer Hunting from September 1-30 and Late Season Archery Deer Hunting from November 23rd to December 8th. Archers may harvest either 2-point or larger bucks or antlerless deer. From 2000 through 2004 bow hunters in the Grayback harvested an average of 49 bucks and 109 antlerless deer per year, enjoying a combined 19% success during the period.

Finally, GMU 588 is open during the Modern Firearm Late Buck Season for Special Permit Holders Only. In 2005, 65 permits have been awarded to the successful applicants. Late season permit holders in GMU 588 may hunt from November 17-20 and are restricted to two-point or larger bucks. From 2000 through 2004, Late Buck Special Permit Holders in GMU 588 have enjoyed an average of 63% success.

Eric Holman Field Biologist



South East Washington Mule Deer Buck Escapement

History

The Blue Mountains of southeast Washington have always been known for abundant mule deer populations and the excellent hunting opportunity they provide in the lowlands and along 150 miles of the Snake River breaks. This area is mostly comprised of private land, utilized for farming and grazing. The land consists of an open, grassland habitat that makes buck deer highly vulnerable to harvest during the general hunting seasons.

The level of vulnerability in this area resulted in high buck mortality and extremely low post-season buck ratios during the 1970's and 1980's. Aerial surveys conducted between 1978 - 89 showed post-season buck to doe ratios were extremely low for both mule deer and white-tailed deer; 2-4 bucks per 100 does. During this period, the general, modern firearm hunting season averaged over 20 days in length. Long hunting seasons and high vulnerability to harvest resulted in low survival rates for buck deer in southeast Washington.

In 1987, the WDFW shortened the general firearms season to 9 days in an attempt to improve post-season buck ratios. The 9-day season was continued for three years (87-89) with little improvement in post-season buck ratios; 3 yr. av. 2 bucks/ 100 does. In 1990, the WDFW developed three options to for improving buck survival and increasing the number of bucks per 100 does post-season. These options included, 1. limited entry deer hunting, 2. spike-two point as a legal buck, with 3 points+ by permit, and 3. a three-point buck regulation. The department recommended the three-point option for both mule deer and white-tailed deer and retained the 9-day general modern firearm season. Continuing the 9-day season was recommended because other states had failed to improve post-season bucks ratios after implementing a three-point regulation. The failure of other states to improve buck ratios appeared to be related to maintaining long seasons, or actually increasing season length after the regulation was implemented. At the time, the Wildlife Commission approved the three-point option for mule deer, but not for white-tailed deer.

Three-point Regulation Implemented

In 1990, the three-point option was implemented for mule deer and applied to all user groups; archers, modern firearm, and muzzleloader hunters. However, excluding white-tailed bucks from the three-point regulation resulted in excessive mortality, because hunters were selecting for white-tailed bucks. Prior to 1990, mule deer bucks comprised approximately 70% of the buck harvest, but the percentage of white-tailed bucks in the harvest rose to 60% in 1990. In 1991, the department recommended including white-tailed bucks under the three-point regulation and the Wildlife Commission approved the recommendation.

Post-season mule deer buck to doe ratios showed immediate improvement after the 1990-hunting season, increasing from an average of 2 bucks/100 does in the 1980's to 9 bucks/100 does. In 1991 and 1992, buck ratios continued to improve reaching 17 bucks/100 does. Over the next 10 years (1993-2002), the post-season mule deer buck ratio averaged 20 bucks/100 does. Post-season white-tailed buck to doe ratios showed similar improvement.

Prior to the three-point regulation, few bucks remained in the mule deer population after the general season, and most of these bucks were yearlings. Mortality was so high, that few bucks survived to become adults. After the regulation was implemented, bucks 2.5 years and older increased substantially. Between 1990-2004, adult mule deer bucks averaged 29% of the post-season buck population.

Theoretically, the three-point regulation should result in fewer bucks in the older age classes, because hunting pressure and mortality is focused on bucks that are two years of age or older. Under a three-point regulation, most of the post-season buck population should consist of yearling (sub-legal) bucks. Although yearling bucks do comprise a high percentage of the post-season mule deer buck population in southeast Washington, the number and

percentage of adult bucks in the post-season population increased substantially after the three-point regulation was implemented (+600%).

In 2003, the WDFW developed the Game Management Plan which set management objectives for post-season buck ratios at a minimum of 15 bucks/100 does. In 2002, post-season mule deer buck ratios started to decline reaching 14 bucks/100 does. Since 2002, post-season mule deer buck ratios have fluctuated between 11 and 14 bucks/100 does. The decline in post-season buck ratios have fluctuated concern among biologists and the public.

Factors Impacting Post-season Buck Ratios

Two factors are contributing to low post-season buck ratios, 1. lower fawn survival, and 2. maintaining general hunting season length for all users.

Deer populations in southeast Washington are dependent on fall green-up that improves nutrition. Fall green-up in the lowlands provides the nutrition necessary for deer to add the fat reserves necessary for winter survival. If fall green-up is minimal due to drought, deer generally go into the winter in poor physical condition, which increases vulnerability to winterkill, especially fawns. If weather patterns include a summer-fall drought followed by no green-up and snow conditions during the winter, the situation for deer in the lowlands and Snake River breaks becomes critical. This type of weather pattern usually results in higher fawn mortality, and lower fawn production the following

year. Southeast Washington was plagued by this type of weather between 2001 and 2003, which is the main factor resulting in lower fawn survival and fewer yearling bucks in the population

Maintaining or increasing hunting season length during periods of low fawn production and survival also contributes to lower post-season buck ratios. Maintaining hunting season length puts steady hunting pressure on a shrinking buck population, increasing additive mortality, which exacerbates the problem. Fewer adult bucks are in the population, and continued harvest along with lower numbers of yearling (sub-legal) bucks holds the post-season buck ratio at lower than desired levels.

The Future

The three-point regulation has worked very well to improve post-season buck ratios and

the age structure of both mule deer and white-tailed buck populations in southeast Washington. Fortunately, fawn survival improved in 2004, and 2005 appears to be a very good year for fawn production. If, over-winter fawn mortality is minimal in 2005-2006, the number of yearling bucks in the post-season mule deer population should improve. An increase in the number of yearling bucks in the population ver time. However, biologists will need to monitor populations closely over the next few years to be sure buck ratios and the age structure of mule deer bucks is improving. If post-season buck ratios fail to improve, adjustments in hunting season structure and opportunity may be necessary to increase buck survival in the future.

Pat Fowler District 3 Wildlife Biologist



Results of Rattlesnake Hills Elk Management Strategies 2000-2005

The Rattlesnake Hills Elk Herd (popularly known as Hanford elk) resides east of the Yakima River and west of the Columbia River. It grew from less than 10 colonizers in winter 1972-1973 to over 800 in 1999. Core range has been the Hanford Reach National Monument's Arid Lands Ecology Reserve (ALE) and private land to the south and west in Benton and northeastern Yakima Counties.

Security provided by Department of Energy's land closure of Hanford and abundant forage provided colonizing elk excellent living conditions. Furthermore, mild winters permit elk to gain weight in winter unlike those elk ranging in the Cascades that often lose weight in winter. The most stressful time for Rattlesnake Hills elk is late spring and summer when bunchgrasses and cheatgrass dry out and become less palatable and nutritious. This drying of grasses may explain why some elk have developed a habit of migrating off ALE onto private farmland in spring and summer.

Dryland wheat farming is extensive on private land surrounding ALE. Elk seek out the young green wheat in spring for forage. They also occupy the several springs on private land surrounding ALE. Elk damage wheat by creating extensive trails in early spring and by trampling as it grows. WDFW is responsible for reimbursing farmers for elk damage to their crops. Since 1999, over \$546,000 has been paid to farmers in the Rattlesnake Hills area for wheat damage caused by elk.

Three tools have been used in an attempt to reduce damage; hazing, harvesting, and trap and relocate. Hazing has been conducted from the ground and air using fixed-wing aircraft. Initially hazing worked very effectively. Eventually though the elk learned that they were not in danger and resumed their behavior patterns. Hazing works best when used in conjunction with other techniques.

Hunting is an effective tool to control problem wildlife through both deterrence and population reduction. Three factors have caused this tool to be less effective in the Rattlesnake Hills. First, the elk typically damage crops during the non-hunting season (spring and summer). Fall hunting does not necessarily target the elk causing damage. Second, the majority of the land is private. Farmers are reluctant to permit access to hunters because some past hunters have damaged property and demonstrated unsafe hunting practices. Third, and most problematic for population control, the ALE has functioned as a de facto elk refuge. The elk seek refuge on ALE each year shortly after the first hunting season opens.

Over the years, WDFW has implemented various combinations of hunting seasons in an attempt to increase harvest. Seasons have been uncommonly long stretching from August through December. During 6 of the last 7 years, general seasons exceeded 40 days for antlerless or either sex harvest. Despite liberal, long seasons, harvest has only exceeded annual recruitment once. In June 2000, a wildfire virtually eliminated all forage on ALE, prompting elk to

seek food elsewhere which made them vulnerable to hunters. That year over 200 elk were harvested. Also, in February 2000, a large trap and relocate effort was conducted on ALE. A total of 174 elk were removed from the population as a result. The trap and relocate effort and high harvest reduced the herd from approximately 800 to 500 head

The use of trap and relocate can be an effective, short-term tool as proven in 2000. It is an expensive tool, however, that can be dangerous for both elk and workers. Finding locations to relocate elk to can be difficult. Relocated elk can become problems in their new area. For these reasons, WDFW only uses trap and relocate for limited short-term objectives, and usually in conjunction with other tools.

Since 2000, harvest of elk has ranged between 53 and 79 each year. A survey conducted in January 2005 yielded a population estimate of 670 elk. This estimate is almost double WDFW's objective of 350 elk established for this herd in 2002. By fall 2005, it is expected, given this herd's average annual calf recruitment rates, that the population will reach 750-800.

This year WDFW added an additional method of increasing harvest. Special permit seasons for advanced hunter education (AHE) graduates were created within two new elk areas in GMU 372. These special permit hunts are being coordinated by Hunt Masters. Private

landowners around ALE have been cooperating with WDFW to coordinate hunts. Cooperation between landowners, WDFW, the Hunt Masters, and AHE hunters is critical. Hunts must be highly coordinated in this open country if hunters are to be successful. If you received a special permit for any hunt within the Rattlesnake Hills, Blackrock or Corral Canyon you should wait until the Hunt Master contacts you before venturing out to the area.

In addition, cooperating landowners were provided with permits to distribute to hunters of their choosing. That way they can select hunters who know the property and can more effectively harvest elk. The majority of the permits are for antlerless elk with a few spike bull and any bull permits. The permits are valid for August to February to ensure consistent pressure over a long period of time to harvest and to keep elk hazed off the private land.

Harvest on surrounding land alone cannot be expected to keep up with annual recruitment no matter how sophisticated hunting seasons become. WDFW is working with the US Fish and Wildlife Service to develop a future process for using the public and tribes on the National Monument to reduce the elk herd. Together, these integrated harvest strategies on ALE and surrounding private lands should result in achieving population objectives and reducing crop damage.

Mike Livingston District 4 Wildlife Biologist

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WDFW Continues to Monitor for Chronic Wasting Disease

This hunting season will represent the 5th consecutive year that the Washington Department of Fish and Wildlife has conducted intensive surveillance for chronic wasting disease (CWD) in Washington. Thanks to the help and cooperation of volunteers, hunters, and meat processors, nearly 4,000 Washington der and elk have been tested for CWD. All results have been negative.

Chronic wasting disease was first described in Colorado and Wyoming over 30 years ago. It is now known to occur in wild populations of deer and elk in Wyoming, Colorado, Utah, New Mexico, Nebraska, South Dakota, Wisconsin, Illinois, Saskatchewan, and as of last spring, New York. Chronic wasting disease affects deer and elk by causing weight loss and abnormal behavior and is always fatal in affected animals. There have been no documented cases of CWD

naturally affecting humans or other animals aside from deer and elk.

For the 2005 hunting season, WDFW will focus its sampling efforts along the border we share with Idaho. This includes all Game Management Units beginning with the number 1. Hunters can help with this effort by stopping at check stations to have their animal sampled and by being on the lookout for newspaper notices and flyers indicating special sampling programs in your area. Since CWD can contaminate the environment via infected carcasses, hunters are reminded to observe the rule passed by the Fish and Game Commission last year that prohibits the importation of certain carcass parts from deer and elk harvested in states or provinces where CWD is known to exist.

Kristin Mansfield DVM Wildlife Veterinarian

Changes in Deer and Elk Hunter Participation and Success in Yakima and Kittitas Counties (District 8)

Going into the 2003 hunting seasons, a new In 2003, archers were allowed to take challenge was given to District Wildlife antlerless deer for the first time since 1997 Biologists: attempt to equalize district hunter participation and success with the statewide proportions, by user group, over the next 3 years. The idea was to provide sufficient opportunity for all groups so that participation would mimic statewide levels. This is an interesting task as trying to predict what hunters will do with regulation changes and how successful they will be is not easy The 2003 and 2004 hunting seasons provided some interesting numbers

For deer, going into the 2003 season, the goal was to try to increase the proportion of muzzleloader deer hunters and increase the success of archers. To entice muzzleloader deer hunters, four more game management units (GMUs) were open for the general season and 60 antlerless permits were issued. The result? Muzzleloader hunters increased by over 500% to near the statewide average. However, muzzleloaders deer hunter success is still below objective.

Modern firearm deer hunters increased by about 1.000 or 10%, but were off set by increases in muzzleloader and archery hunters. The main change for modern firearm hunters was moving GMU 342 from permit only to a general season. In addition, 125 antlerless permits and 25 late buck permits were issued. Antlerless permits were also added for seniors, youth, and hunters with disabilities

and four GMUs were added to the late season. An additional 1,200 people hunted the archery season. The archery deer regulation change went too far, in 2003, archers took 33% of the deer while comprising 24% of the hunters. In an attempt to correct for the high harvest, 15 days of antlerless opportunity were removed from the early season and deer archery hunter success declined to near the goal.

There have been mild winters since 1996-97 with an increasing deer herd. Typically we get a hard winter every eight to ten years that results in significant declines in deer numbers. In anticipation of the next hard winter, the harvest of antlerless deer is being increased in 2005. All user groups saw a large increase in antlerless deer opportunity in 2005. It will be interesting to see the result as there have not been large numbers of antlerless deer permits in the area for 30-40 years

For District 8 elk hunters, the main goal was to increase antlerless harvest for modern firearm hunters, but not necessarily shift hunter numbers. Archers were not asked to reduce harvest even though success rates were fairly high (Table 2). Muzzleloaders had a high success rate because of open general season antlerless opportunity, most of which was in damage areas. To achieve the goals, the damage areas (3911 and 3912)

were open to AHE master hunters (any tag) and more antlerless permit opportunity was to modern firearm hunters. In addition, GMU 346 was eliminated as an any elk late muzzleloader hunt and damage hunt areas 3911 and 3912 were converted to AHE hunts. At the same time, 5 new muzzleloader units were open for spike bull hunting general seasons with branch antler bull by permit and 750 antlerless permits were issued. The net result of all the changes appeared to be hunters switching from muzzleloader to modern firearm, although those who stayed with muzzleloaders still enjoy a fairly high success rate.

Archers also received an unexpected reduction in antlerless elk opportunity in the Colockum, 2004, as herd goals were not being met. The reduction in antlerless opportunity for archers in the Colockum reduced their proportion of harvest in 2004 over the District, but it averaged out a high success rate in 2003. There was an obvious

shift of archers from the Colockum to Yakima GMUs

Tweaking" of season and opportunity are likely to continue in the next 3-year package in an attempt to further equalize district harvest and user group size with the statewide averages. For the 2003-05 seasons, with the exception of the Colockum elk, there have been enough animals to expand antlerless opportunity. numbers have been increasing with mild winters and antlerless opportunity for Yakima elk herd has been high, as the herd has been intentionally reduced from 11,000 to 9 500 elk. The Yakima elk herd is now near it's goal and antlerless harvest is being reduced to stabilize the herd at 9,500. If the anticipated severe winter reduces the deer herd, major adjustments will be made.

> Jeff Bernatowitz District 8 Wildlife Biologist

Table 1: Comparison of Deer Hunter Participation and Success in District 8

	2000-02 Statewide Participation	2000-2002 District Participation	2003 District Participation	2004 District Participation	2003-04 Average Participation	2000-2002 Harvest Prepertion	2003 Harvest Proportion	2004 Harvest Proportion	2003-04 Average Harvest
Arch	12	20.9	24.5	21.6	23.1	10:0	33.1	19.7	26.4
Muzz.	5	1.5	6.5	6.9	6.7	1.7	4.4	3.8	4.1
Modern	83	77.5	68.9	71.3	70.1	88.3	62.3	76.3	69.3

Table 2: Comparison of Elk Hunter Participation and Success in District 8

	2000-02 Statewide Participation	2000-02 District Participation	2003 District Participation	2004 District Participation	2003-04 Average Participation	2000-2002 Harvest Proportion	2003 Harvest Proportion	2004 Harvest Proportion	2003-04 Average Harvest
Arch	17	14.9	16.3	13.5	14.9	17.4	18.9	11.5	15.2
Muzz.	13	14.2	10.4	10.5	10.5	19.6	12.5	12.0	12.2
Modem	70	70.9	73.2	75.9	74.5	63.0	68.5	76.5	72.5

Waterfowl Management - -Working With A Positive

As Washington's human population continues to soar - - so do conflicts between people fish, wildlife, and habitat resources Each year more and more of our agency's people and assets are directed toward plugging holes in the dike. We fix what's broke and protect what we have - - do battle against the societal forces that are laying siege to our natural resources. We hear this kind of rhetoric on a daily base. This is an important part of our agencies work and it sometimes puts us at odds with human development and other actions that negatively impact wildlife resources.

Part of our agency's mandate includes providing recreation and managing wildlife harvest. With the diminished demand for fur, there isn't much for commercial wildlife harvest anymore and we are left with recreational harvest on the wildlife side of our agency. Many of the issues that our Game Division deals with are too many critters where we don't want them (Canada geese in urban areas or elk in the farmlands), or not enough critters where we do want them (mule deer out on the range).

We rarely have the pleasure of working with a positive and even when we do we often don't appreciate it enough or may not even see it right in front of our face. Populations of many species of waterfowl have been at or near record highs for the last few years.

The science behind the data is strong and we have trend data that goes back to 1955. The mallard is the most common duck shot in Washington and their continental breeding population is 25% above the long-term average. Hunters in Washington currently harvest more than 250,000 mallards per year. In the last couple of years hunter expectation was high because of the forecasted large populations, however weather was not always cooperative in providing high quality hunting. None-theless the average waterfowl hunter in Washington harvested nearly 15 ducks for the season. The highest seasonal success

rate ever recorded. Why are waterfowl Last but far from the least of the factors populations doing so well? The answers include an effective infrastructure for management and coordination, targeted funding, direct benefits from other conservation efforts such as wetland protection, and of course - - mother nature.

The infancy for our Nations conservation efforts began with waterfowl. Long before the Endangered Species Act of 1973. The Migratory Bird Treaty Act was ratified in 1918. This treaty set the foundation for State, Federal, and international coordination for migratory bird conservation, and necessitated the creation of Flyway Councils and Technical Committees. Our Pacific Flyway is a partnership between the Federal Government, 13 states, 4 Canadian provinces, Mexico, and Russia. This infrastructure has ensured that waterfowl populations are managed very conservatively. Waterfowl managers have never had much of an allocation problem, we never have attempted to harvest the last harvest-able duck - our partners wouldn't let us. The federal Migratory Bird Hunting Stamp Act 1934 established a source of funding from hunters to support acquisition and management of National Wildlife Refuges managed primarily for waterfowl. Most states have followed suit with state duck stamps Washington's stamp was established in 1986 and has contributed more than \$5,000,000 toward protection and enhancement of waterfowl habitats. These dollars have been very effective at leveraging additional funds from other partners. Any federal, state, or local regulations that protect wetlands, directly benefit waterfowl that depend on these habitats. Many prominent non-governmental organizations such as Ducks Unlimited, Inc., Washington Waterfowl Association, and Audubon Society, have directed tremendous efforts toward benefits to migratory birds and wetland habitats. Not the least of these benefits includes educating the public of the value of these resources and need for conservation

contributing to the success of waterfowl management is Mother Nature. Habitats that support many of our commonly hunted species are highly productive temporary and seasonal wetlands. Current precipitation patterns have ensured adequate water in wetlands in important waterfowl breeding areas. The glaciated pothole area in north central Washington is one such area. The reproductive biology of many waterfowl species allows for high production when conditions are favorable (e.g., large clutch sizes and re-nesting if early nesting attempts fail.)

Waterfowl managers have been tremendously effective at protecting the resource and providing terrific recreational opportunity. We should all revel in this success and focus on what a positive accomplishment it has been. Again harvest success this season will depend on weather patterns and where you hunt, but overall the most popular waterfowl populations are still very healthy.

> Matthew J. Monda Ph.D. Ephrata Regional Wildlife Biologist

Olympic Peninsula November Buck Hunts

In an effort to look for new and interesting opportunities for deer hunters, biologists in the Olympic peninsula area initiated a limited number of buck permits during the coastal black-tailed deer rutting period. The permits began in 2001 with 10 permits each issued in four of the highest deer density units, Skookumchuck, Satsop, Wynoochee and Capitol Peak game management units. The permits run from the November 1 through the 11th. These permits are the most popular buck permits in the Coastal Region and have over 700 applicants in some of the units hoping to become one of the ten drawn for the hunt.

The idea of the hunt was to allow blacktailed deer hunters an opportunity to bag a mature buck during the early November period. The ongoing rut should make the older bucks more available to harvest. So in theory this should draw a greater number of selective buck hunters.

So it was with great interest, during the first years of this hunt that wildlife biologist, Greg Schirato checked a group of young hunters drawn for this hunt. The group of friends had hoped for the opportunity to hunt together, Kailyn McIrvin 11, Megan Lund 11 were each after their first deer. Allie Lund 13 and Chase Lund 9 had both gotten a deer prior to that season. The group of friends did not fit the stereotype of the hunters that would be applying for this quality opportunity, which made it even more exciting. The fathers and grandparents all wished they had been drawn for this opportunity and have applied every year in hope of having this opportunity.

The girls had passed up over 70 deer in their quest for the nice buck. Yes, most hunters would be thrilled to have the opportunity to pass up that many bucks in the entire season. The Dads had hoped for each to get a buck that was respectable and score about 90 on the antler scoring. Chase hunted with grandpa before school and bagged his big buck after two mornings of hunting. The girls passed up at least 6-branched bucks that weren't what they were hoping for. Gradually each hunter got his or her nice buck

After so many passed up bucks, Kailyn decided that her Dad didn't shoot that nice of a buck on his first hunt and she was going to shoot the next branched buck. Finally after 6 days of hunting, with a nice buck spotted across the canyon two of the dads debated corrections for the wind and other issues related to the shot. Kailyn picked out a rest flipped off the safety and dropped the deer with her first shot while the Dads were still debating corrections necessary to make the shot. It too was another nice buck. The hunt was great fun and success with an unforgettable first deer experience. This year Megan's little brother, Zach, 11 was drawn for the hunt he hopes to repeat in his sister's success with this quality hunt.

So whether you are a woods savvy black tailed hunter looking for the big black-tailed deer or looking for a quality first deer, this is definitely a hunt that should be considered and should yield pleasant results.

Greg Schirato District 15 Wildlife Biologist